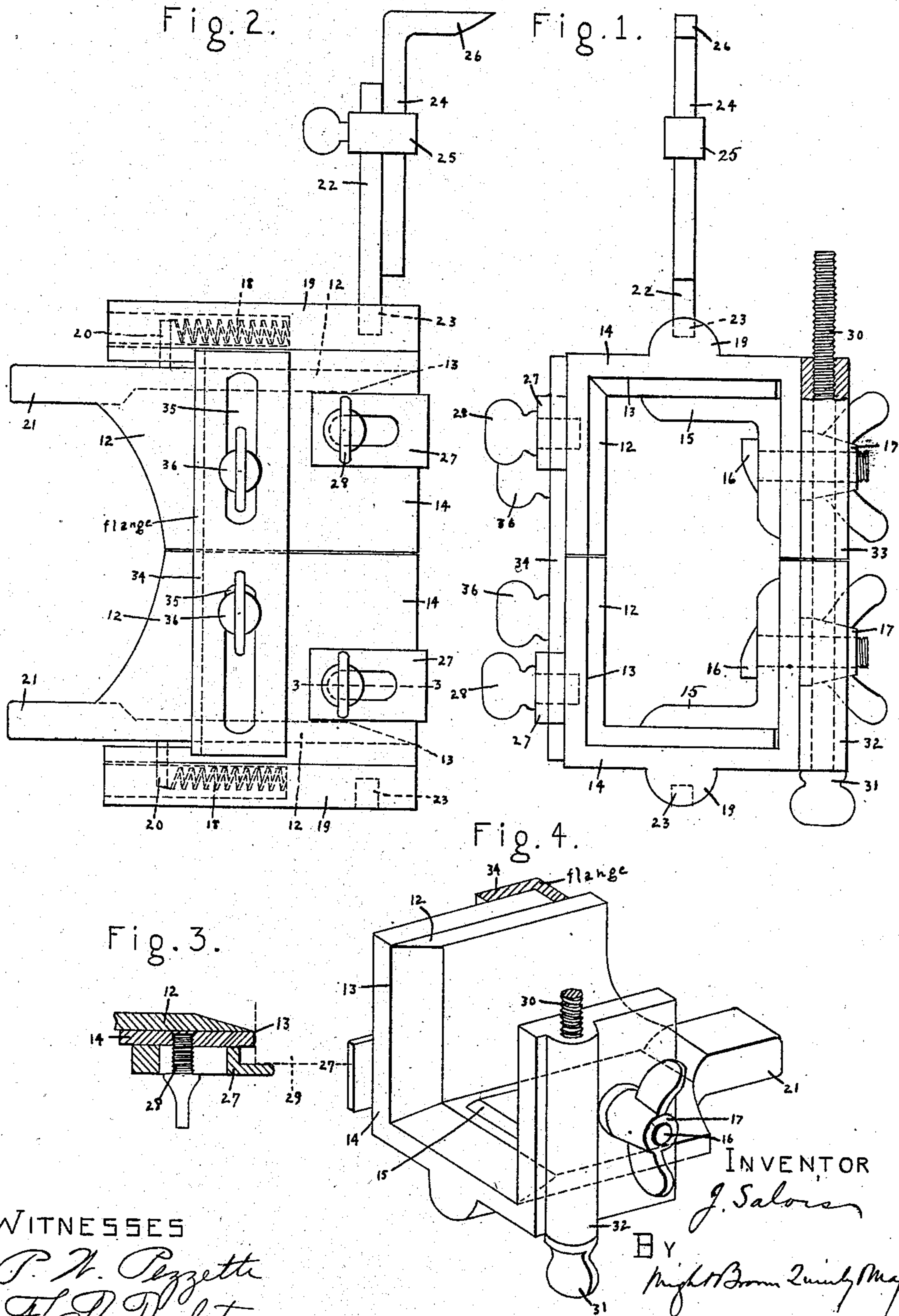


J. SALOIS.
HINGE SOCKET CUTTER.
APPLICATION FILED JULY 17, 1908.

911,909.

Patented Feb. 9, 1909.



WITNESSES

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JOSEPH SALOIS, OF LAWRENCE, MASSACHUSETTS.

HINGE-SOCKET CUTTER.

No. 911,909.

Specification of Letters Patent.

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Application filed July 17, 1908. Serial No. 443,979.

To all whom it may concern:

Be it known that I, JOSEPH SALOIS, of Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Hinge-Socket Cutters, of which the following is a specification.

This invention has for its object to provide an implement for the use of carpenters in cutting hinge sockets or seats in door jambs and in the inner edges of doors, the cutter of my invention being intended to form three edges of a socket or seat adapted to receive a door hinge leaf.

The invention consists in the improved implement which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification, Figure 1 represents an end view of a hinge socket cutter embodying my invention. Fig. 2 represents a side view of the same. Fig. 3 represents a section on line 3—3 of Fig. 2. Fig. 4 represents a perspective view of a portion of the cutter.

The same reference characters indicate the same parts in all the figures.

My improved hinge socket cutter comprises a box-shaped holder adapted to support two L-shaped knives 12, 12 in given, predetermined relative positions, each knife having an L-shaped cutting edge 13, the two cutting edges being relatively arranged so that two of their arms are in alinement with each other, and adapted to form the longer edge of a hinge leaf socket, the other two arms being at right angles with the alined arms, and adapted to cut the ends of the socket. The box-shaped holder is here shown as composed of two sections 14, 14, which meet to form an open frame or box, as shown in Fig. 1, and are adjustably connected, as hereinafter described, so that the said sections 14 and the knives carried thereby may be adjusted toward and from each other to vary the length of the hinge socket, it being understood that when the holder is elongated to separate the alined arms of the knives, the cut formed by said arms will be interrupted, and may be completed by a subsequent operation with a chisel or other instrument. Each knife 12 is movable in the section 14 with which it is connected, so that its cutting edge may be projected from the front end of the holder, each knife being guided by two of the sides of the section 14 in which it is

located, and by a bracket 15 attached to said section by means of a bolt 16 and a thumb nut 17. Each knife is normally retracted so that its cutting edge is flush with the mouth of the holder, as indicated in Fig. 4, by means of a spring 18 bearing at one end on the inner end of a socket formed in a boss 19, and at its other end on a pin or stud 20 attached to the knife and projecting into said socket. Provision is thus made for guarding the cutting edges of the knives when they are not in use. Each knife is provided with a rearwardly projecting shank 21 adapted to be struck by a mallet to drive forward or project the knife and cause its cutting action.

The holder is provided with a gage adapted to engage either the upper or lower end of a door, or of a door casing, to locate the hinge socket at the desired distance from said end, the gage being here shown as adjustable in length and composed of a rod 22 screw-threaded at its inner end, and detachably engaged with a screw-threaded socket 23 formed for its reception in the boss 19, and a rod 24 adjustably secured by a clamp 25 to the rod 22, and provided at its outer end with an arm 26 adapted to bear either against an end of the door casing, or an end of the door. In cutting hinge seats near the ends of the door casing and door, the gage employed will be relatively short. A longer gage may be employed for use when the cutter is employed to cut the middle socket of a three-hinge door, the end gages being used interchangeably, and each gage being adapted to be applied either to the upper end or the lower end of the holder.

27, 27 represent side gages detachably secured to one side of the holder by means of thumb screws 28, said gages having lips projecting forward from the front end of the holder, and adapted to bear against one side of a door 29, to determine the distance between the edge of the socket formed by the alined arms of the cutters and the edge of one side of the door. Gages 27 of different thicknesses will be provided, the gages being used interchangeably.

As before stated, the sections 14 of the holder are here shown as formed in separate parts, the holder being adapted to be elongated to vary the length of the hinge socket. The means here shown for adjustably connecting the sections 14 and holding them at any desired adjustment include a screw-

threaded rod 30 having a head 31 which bears against one end of a boss 32 formed on one end of the section 14, said boss having an orifice which is smooth or not threaded. The
 5 rod 30 passes through said orifice, and its screw-thread is engaged with an internal thread formed on a boss 33 on the other section 14. On the opposite side of the holder
 10 is a connecting plate 34 having slots 35 through which pass thumb screws 36, which detachably secure the plate 34 to the section 14.

In Figs. 1 and 2, the holder is shown as adjusted to form a socket of minimum
 15 length, the sections 14 and knives 12 abutting against each other. When it is desired to increase the length of the holder, the thumb screws 36 are loosened and the adjusting screw 30 is rotated to move the sections
 20 14 apart. When the desired adjustment has been effected, the thumb screws 36 are tightened, thus holding the sections in the desired adjustment.

In cutting a hinge socket in the inner edge
 25 of a door, the operator adjusts the end gage 26 and places it upon one end of the door with the outer end of the holder bearing against the inner edge of the door, and the side gages 27 bearing against one side of
 30 the door. The knives are then projected by blows of a mallet upon the shanks 21 until they have entered the door to the desired depth, and have thus formed three sides of a hinge socket. In cutting a socket in the door
 35 jamb or casing, the operation is practically the same, the gage 26 being brought into contact with one end of the casing and turned to project in the opposite direction from that shown in Fig. 2.

40 It is obvious that the cutter can be used in the manner described at either end portion of the door or door casing. When the cutter is to be used for cutting seats midway between the ends of the door or casing, the
 45 longer end gage will be employed.

I claim:

1. A hinge socket cutter comprising a box-shaped holder having internal guide brackets, and two L-shaped knives, each movable
 50 in the holder and guided by two sides of the

holder, and by one of said brackets, the knives being adapted to be projected from the holder, and provided with rearwardly projecting driving shanks.

2. A hinge socket cutter comprising a box-shaped holder, two L-shaped knives movable therein and adapted to be projected from the holder, each knife having a rearwardly projecting driving shank and an elongated gage rod adjustably and detachably secured to
 60 the holder and adapted to engage either a door jamb or a door end.

3. A hinge socket cutter comprising a box-shaped holder having internal guide brackets, two L-shaped knives, each movable in
 65 the holder and guided by two sides of the holder and by one of said brackets, and springs engaged with the holder and knives and adapted to retract the knives to guard their cutting edges, the knives being adapted
 70 to be projected from the holder and provided with rearwardly projecting driving shanks.

4. A hinge socket cutter comprising two knives having L-shaped cutting edges adapted
 75 to collectively cut three edges of a socket, a holder composed of two sections adapted to support and guide the knives in their predetermined relative positions, and means for holding the sections and knives at different
 80 distances apart to determine the length of the socket.

5. A hinge socket cutter comprising a box-shaped holder composed of two sections, each having two internal guiding faces and
 85 an internal guiding bracket, means for adjustably connecting said sections, and two L-shaped knives guided by the said internal faces and brackets, and having L-shaped cutting edges adapted to be projected from
 90 the holder.

In testimony whereof I have affixed my signature, in presence of two witnesses.

his
 JOSEPH X SALOIS.
 mark

Witnesses:

JOSEPH O. SALOIS,
 ARTHUR W. SALOIS.